

**Notice of Allowability**

Application No.

10/750,562

Examiner

Michael C. Maskulinski

Applicant(s)

BOATRIGHT ET AL.

Art Unit

2113

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/14/06.
2. ☒ The allowed claim(s) is/are 1-6,11,15-20 and 24-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Angela Sagalewicz on December 4, 2006. The application has been amended as follows:

2. In claim 1, delete amended claim 1 and replace with:

A method comprising:

detecting an error within a cache line of a cache memory;

determining whether the error is a second consecutive error associated with the cache line; and

preventing further use of the cache line if the error is determined to be the second consecutive error associated with the cache line by modifying a cache management system to at least inhibit subsequent access to the cache line, said modifying including at least a selected one of modifying by the cache management system a value corresponding to a particular set such that the cache line is less likely to be accessed than at least one other cache line, and assigning by the cache management system a disable state to the cache line as part of a MESI state assignment.

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3. In claim 4, line 4, delete "as a second consecutive error" and replace with "as the second consecutive error".

4. In claim 16, delete amended claim 16 and replace with:

A processor comprising:

a cache memory;

error detection logic coupled to the cache memory, the error detection logic equipped to:

detect an error within a cache line of the cache memory;

determine whether the error is a second consecutive error associated with the cache line; and

prevent further use of the cache line if the error is determined to be the second consecutive error associated with the cache line by modifying a cache management system to at least inhibit subsequent access to the cache line, said modifying including at least a selected one of modifying by the cache management system a value corresponding to a particular set such that the cache line is less likely to be accessed than at least one other cache line, and assigning a disable state to the cache line as part of a MESI state assignment.

5. In claim 25, delete amended claim 25 and replace with:

A system comprising:

a dynamic random access memory and;

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an integrated circuit coupled to the dynamic random access memory, the integrated circuit including a cache memory and error detection logic, wherein the error detection logic is equipped to:

detect an error within a cache line of the cache memory,

determine whether the error is a second consecutive error associated with the cache line, and

prevent further use of the cache line if the error is determined to be the second consecutive error associated with the cache line by modifying a cache management system to at least inhibit subsequent access to the cache line, said modifying including at least a selected one of modifying a value corresponding to a particular set such that the cache line is less likely to be accessed than at least one other cache line, and assigning a disable state to the cache line as part of a MESI state assignment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Maskulinski whose telephone number is 571-272-3649. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael C Maskulinski  
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